

WHAT IS CLAIMED IS:

1. An electronic component comprising:

a substrate having a through hole formed in a thickness direction thereof; and

5 a conductor, disposed in the through hole, for electrically connecting one side of the substrate to the other side thereof;

wherein the through hole has a major axis diameter and a minor axis diameter on at least one of one side and  
10 the other side of the substrate.

2. An electronic component according to claim 1, wherein the through hole has a form satisfying

$$1 < (D3/D4) \leq 5$$

where D3 is the major axis diameter on the one side, and  
15 D4 is the minor axis diameter on the one side.

3. An electronic component according to claim 1, wherein the through hole has a form satisfying

$$0.4 \leq (D5/D4) \leq 0.94$$

where D4 is the minor axis diameter on the one side, and  
20 D5 is the minor axis diameter on the other side.

4. An electronic component according to claim 1, wherein the through hole comprises a plurality of holes arranged along the thickness direction of the substrate; and

25 wherein the holes formed adjacent each other in the thickness direction of the substrate have respective center

axes shifted from each other as seen in a predetermined direction orthogonal to the thickness direction of the substrate.

5           5.     An electronic component according to claim 4,  
wherein the predetermined direction orthogonal to the thickness direction of the substrate is the minor axis direction of the through hole.

10           6.     An electronic component according to claim 1,  
wherein the through hole comprises a plurality of holes arranged along the thickness direction of the substrate;  
and

15           wherein the holes formed adjacent each other in the thickness direction of the substrate are kept from overlapping each other as seen in the thickness direction of the substrate.

            7.     An electronic component according to claim 1,  
further comprising a plurality of conductive films arranged with a gap therebetween extending in the thickness direction of the substrate; and

20           wherein the conductor electrically connects the conductive films to each other.

            8.     An electronic component according to claim 7,  
wherein the through hole has a length  $D_0$  of

$$D_0 \leq 500 \text{ } \mu\text{m}$$

25           in each conductive film as seen in a minor axis direction.

            9.     An electronic component according to claim 7,

wherein the through hole is formed so as to have a major axis direction extending along a longitudinal direction of the conductive films.

10. An electronic component according to claim 7,  
5 wherein the conductive film comprises a first electrode film, a first terminal electrode film, a second electrode film, and a second terminal electrode film;

wherein the first electrode film and first terminal electrode film are disposed at the same position as seen  
10 in the thickness direction of the substrate with a first insulating gap therebetween;

wherein the second electrode film and second terminal electrode film are disposed at the same position as seen  
15 in the thickness direction of the substrate with a second insulating gap therebetween;

wherein the second electrode film opposes the first electrode film and first terminal electrode film by way of the substrate;

wherein the second terminal electrode film opposes  
20 the first electrode film by way of the substrate;

wherein the conductor includes a first conductor and a second conductor;

wherein the first conductor electrically connects the first electrode film and the second terminal electrode film  
25 to each other; and

wherein the second conductor electrically connects

the second electrode film and the first terminal electrode film to each other.

11. An electronic component according to claim 10,  
wherein a group of the first electrode film and first terminal  
5 electrode film and a group of the second electrode film and  
second terminal electrode film are alternately disposed  
within the substrate with a gap in the thickness direction  
of the substrate.

12. An electronic component according to claim 1,  
10 wherein the substrate comprises a piezoelectric material  
and functions as an actuator.